

APR 15 1993

Before the
FEDERAL COMMUNICATIONS COMMISSION
 Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
 OFFICE OF THE SECRETARY

In the Matter of)

Rulemaking to Amend Part 1 and Part 21 of the
 Commission's Rules to Redesignate the 27.5 - 29.5
 GHz Frequency Band and to Establish Rules and
 Policies for Local Multipoint Distribution Service;)

CC Docket No. 92-297

RM-7872; RM-7722

Applications for Waiver of the Commission's Common
 Carrier Point-to-Point Microwave Radio Service Rules;)

Suite 12 Group Petition for Pioneer's Preference;)

PP-22

University of Texas - Pan American Petition for
 Reconsideration of Pioneer's Preference Request Denial)

REPLY COMMENTS

The Wireless Cable Association International, Inc. ("WCA"), by its attorneys and pursuant to Section 1.415 of the Commission's Rules, hereby replies to certain of the comments filed in response to the *Notice of Proposed Rulemaking, Order, Tentative Decision and Order on Reconsideration* (the "NPRM") in the captioned proceeding.^{1/}

In its initial comments, WCA expressed support for the reallocation of the 27.5 - 29.5 GHz frequency band (the "28 GHz band") to the Local Multipoint Distribution Service ("LMDS"), but only if LMDS proves technologically viable. In those comments, WCA urged the Commission to carefully craft a regulatory environment designed to strengthen the competitive marketplace through a spectrum set-aside for the

^{1/} *Rulemaking to Amend Part 1 and Part 21 of the Commission's Rules to Redesignate the 27.5 - 29.5 GHz Frequency Band and to Establish Rules and Policies for Local Multipoint Distribution Service, FCC 92-297* (rel. Jan. 8, 1993)[hereinafter cited as "NPRM"].

benefit of wireless cable operators, if the record is supplemented sufficiently in response to the *NPRM* that the Commission can move forward on a reallocation to the LMDS. Therefore, WCA will focus its reply on those two critical issues: the technical viability of LMDS and the wisdom of setting aside spectrum in the 28 GHz band for wireless cable system operators.^{2/}

I. THERE REMAIN SERIOUS UNANSWERED QUESTIONS REGARDING WHETHER LMDS CAN PERFORM IN THE FIELD AS PROMISED.

Many of the comments submitted in response to the *NPRM* shared WCA's skepticism^{3/} about the technical viability of LMDS at 28 GHz.^{4/} As the comments of the

^{2/} While WCA also proposed a variety of rules to deter speculative applications, its comments speak for themselves and no reply comments are necessary. Comments of Wireless Cable Ass'n Int'l, CC Docket No. 92-297, at 20-26 (filed Mar. 16, 1993)[hereinafter cited as "WCA Comments"]. In addition, for the reasons previously stated by WCA, WCA objects to the claim by Suite 12 Group ("Suite 12") that it should be awarded a pioneer's preference for LMDS in Los Angeles without jeopardy to the license awarded its affiliate for the New York market. See *Opposition of Wireless Cable Ass'n Int'l*, PP-22 (filed Jan. 15, 1992).

^{3/} See WCA Comments, at 6-11. See also Comments of Wireless Cable Ass'n Int'l, RM 7872 (filed Jan. 15, 1992); Letter of Paul J. Sinderbrand, Esq. to Donna R. Searcy, File No. 10380-CF-P-88 (dated June 14, 1989); Letter of Paul J. Sinderbrand, Esq. to Donna R. Searcy, File No. 10380-CF-P-88 (dated July 6, 1989); Letter of Paul J. Sinderbrand, Esq. to Hon. Alfred C. Sikes, File No. 10380-CF-P-88 (dated Nov. 1, 1989).

^{4/} See, e.g. Comments of Nat'l Aeronautics and Space Admin., CC Docket No. 92-297, at 15-17 (filed Mar. 16, 1993)[hereinafter cited as "NASA Comments"]; Comments of Ameritech, CC Docket No. 92-297, at 6-7 (filed Mar. 16, 1993)[hereinafter cited as "Ameritech Comments"]; Comments of M3 Illinois Telecommunications Corp., CC Docket No. 92-297, at 13-14 (filed Mar. 16, 1993); Comments of Technology Engineering Co., CC Docket No. 92-297, at 2-3 (filed Mar. 8, 1993)[hereinafter cited as "TEC Comments"].

National Aeronautics and Space Administration ("NASA") bluntly put it, "there are significant issues associated with the design of Suite 12 Group's LMDS system that cast doubt on the technical and economic viability of the system."^{5/} Similarly, Ameritech notes that "Suite 12's system is in large part untested and may have latent problems."^{6/} Sharing a concern voiced by WCA, both Technology Engineering Company and Ameritech raise fears about Suite 12's reliance on unproven technology to achieve polarization discrimination that will permit frequency reuse without causing co-channel interference.^{7/} Indeed, even Suite 12 now concedes that, despite its earlier statements to the contrary, cross-polarization will not necessarily permit the simultaneous use of the 28 GHz band for point-to-point links and LMDS.^{8/}

Unfortunately, Suite 12 still refuses to share with the Commission any field data regarding the performance of its technology. There is no evidence in the record of how Suite 12's system actually performs in the presence of cochannel signals -- signals that Suite 12 admits "ricochet like golf balls" at 28 GHz.^{9/} Particularly given the competing

^{5/} NASA Comments, at 15.

^{6/} Ameritech Comments, at 6.

^{7/} See WCA Comments, at 7-9; Ameritech Comments, at 6-7; TEC Comments, at 2-3.

^{8/} Comments of Suite 12 Group, CC Docket No. 92-297, at 9 (filed Mar. 16, 1993)[hereinafter cited as "Suite 12 Comments"].

^{9/} Andrews, "A New Microwave System Poses Threat to Cable TV," *New York Times*, A1, D2 (Dec. 11, 1992).

demands for the 28 GHz band,^{10/} it would be inappropriate for the Commission to accept on faith Suite 12's claim that the use of narrowbeam receive antennas with good discrimination characteristics obviates the problems associated with extreme frequency reuse.

Therefore, WCA joins with NASA in suggesting that "all of the technical and economic questions about the viability of the LMDS at 27.5-29.5 GHz must be studied and answered before a decision is made on whether to reallocate the band for the LMDS."^{11/} The Commission had it right when it reasoned just two years ago that:

A formal Rule Making proceeding to inquire as to the feasibility of permanently reallocating the 28 GHz band and establishing regulatory policies for the provision of a nationwide point-to-multipoint video service utilizing these frequencies would be premature. Although Hye Crest has indicated that its proposal is viable, and its proposal may well prove to be an innovative means to deliver video services to consumers, this will not be confirmed until it is actually implemented and subjected to the rigors of the marketplace. Should the proposal prove to be a success and the public benefits anticipated become a reality, a general investigation into alternative uses of the 28 GHz band would then be appropriate for consideration.^{12/}

There is no reason to retreat from that position now; reallocation should occur when it is demonstrated that LMDS can perform in the 28 GHz band as promised, and not before.

^{10/} See, e.g. NASA Comments; Comments of Loral Qualcomm Satellite Services, CC Docket No. 92-297 (filed Mar. 16, 1993); Comments of U.S. Telephone Ass'n, CC Docket No. 92-297, at 4-5 (filed Mar. 16, 1993); Comments of Digital Microwave Corp., CC Docket No. 92-297, at 2-6 (filed Mar. 16, 1993).

^{11/} NASA Comments, at 17.

^{12/} *Hye Crest Management, Inc.*, 6 FCC Rcd 332, 335 (1991).

II. A SET-ASIDE FOR WIRELESS CABLE OPERATORS COULD PROVE ESSENTIAL TO THE DEVELOPMENT OF A FULLY-COMPETITIVE MARKETPLACE.

In the *NPRM*, the Commission solicited comment as to whether the public interest would be served by setting aside one LMDS channel group in each market for wireless cable operators.^{13/} If LMDS is proven capable of delivering the voice, data and video services Suite 12 claims, such a set aside would most certainly advance the public interest by assuring vigorous competition in the emerging residential telecommunications marketplace.

As WCA noted in its initial comments, wireless cable operators today are facing tremendous challenges in the marketplace as a direct result of the limited amount of spectrum available to them -- a maximum of thirty-three channels, of which twenty must be substantially devoted to, or reserved for, educational programming. With that limited capacity, wireless cable operators must not only compete against such giants as the Time Warner 150 channel system in Queens, New York,^{14/} but will soon have to confront the 500 channel behemoths promised by Tele-Communications, Inc ("TCI").^{15/} While the wireless cable industry is aggressively pursuing digital compression as a vehicle for

^{13/} See *NPRM*, at ¶ 19.

^{14/} Moshavi, "Time Warner Unveils 150 Channels," *Broadcasting*, at 18 (Dec. 23, 1991).

^{15/} See "An Explosion of Channels," *Broadcasting*, at 14 (Jan. 4, 1993).

offering consumers additional programming options,^{16/} that same compression technology will be available to the cable industry, and cannot be relied upon alone to close the channel gap.

Perhaps more importantly, wireless cable operators must be prepared to face "the increasing convergence of previously separate markets embracing voice, data, graphics and video."^{17/} Barely a day goes by without news about the plans of franchised cable operators and telephone companies to offer an integrated voice, data and video service to residential customers.^{18/} Wireless cable operators, however, do not currently have access to the spectrum they need to add competitive two-way services and keep pace. There is a substantial risk that, absent additional spectrum permitting wireless cable to add broadband offerings, residential consumers will find themselves subject to a duopoly marketplace dominated by cable and telephone interests. A set-aside of a portion of the 28 GHz band for local wireless cable operators could provide the vehicle for wireless operators to provide a competitive broadband service.

^{16/} See "Wireless cable will benefit more from digital compression," *Communications Daily*, at 7 (Aug. 24, 1992); "WCA Throws Down The Gauntlet," *Multichannel News*, at 31 (Aug. 10, 1992).

^{17/} *Telephone Company-Cable Television Cross Ownership Rules*, Section 63.54-63.58, 7 FCC Rcd 300, 305-306 (1991).

^{18/} See, e.g., "TCI To Hike Capital Spending 2/3 to Boost Local Fiber Installations," *Communications Daily*, at 1 (April 13, 1993); "Info Highway Already In Place, Congress Told," *Broadcasting*, at 32 (Mar. 29, 1993); "The Telco-Cable Convergence," *Broadcasting*, at 45-54 (Jan. 4, 1993).

WCA envisions the development of a hybrid 2/28 GHz approach to providing wireless broadband services in the future. The 2 GHz band remains the most cost-effective mechanism for distributing programming in a broadcast manner throughout a metropolitan area. It simply makes no sense from a financial or spectrum management perspective to have a vast network of 28 GHz cells retransmitting cable programming to subscribers when the same programming can be transmitted to the same subscribers from a single 2 GHz headend at lower cost. However, the need to use a cellular configuration in the 28 GHz band makes the 28 GHz more appropriate for point-to-point voice, data and video applications that need not be broadcast to all subscribers. Thus, WCA foresees that wireless cable operators will utilize the 2 GHz band for their point-to-multipoint services, while reusing the 28 GHz band primarily for distributing point-to-point services like telephony and video-on-demand.

WCA has not been alone in its call for a wireless cable expanded allocation.^{19/} Yet, not surprisingly, some commentators responded negatively to the Commission's solicitation of comments on the wisdom of a wireless cable set-aside. However, not one

^{19/} See, e.g. Coalition for Wireless Cable, CC Docket No. 92-297, at 2-11 (filed Mar. 16, 1993); Comments of U.S. Interactive and Microwave Television Ass'n, CC Docket No. 92-297, at 12-14 (filed Mar. 16, 1993). However, WCA finds bizarre the

of those who opposed a wireless cable set-aside effectively refutes WCA's demonstration that additional spectrum is needed for wireless to remain a viable competitor in the coming years.

Some of those opposing a wireless cable set-aside offer no substantive explanation for their position -- apparently, they simply want the spectrum for themselves, regardless of any adverse impact on the competitive marketplace.^{20/} Others rationalize their opposition to a wireless set-aside by raising the "red herring" claim that the set-aside is intended to improperly insulate wireless cable operators from competition.^{21/} That, however, has never been the policy objective behind a separate allocation for wireless cable. Rather, WCA's objective is to assure that wireless cable remains a viable competitor as the cable and telephone industries move towards broadband distribution of video, voice, and data services.

While Suite 12 is certainly correct that wireless cable "is maturing as an industry and becoming more competitive with the help and encouragement of the FCC," that hardly leads where Suite 12 takes it -- to the conclusion that no wireless set-aside is needed.^{22/} To the contrary, it is precisely why the Commission should establish a policy




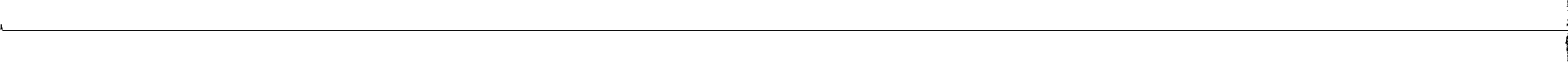
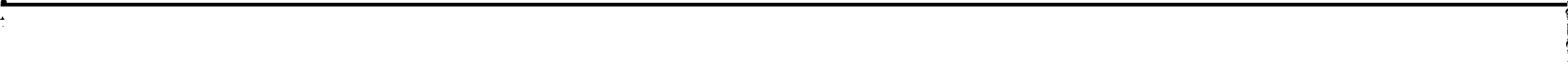












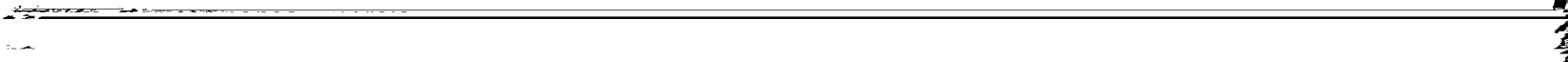
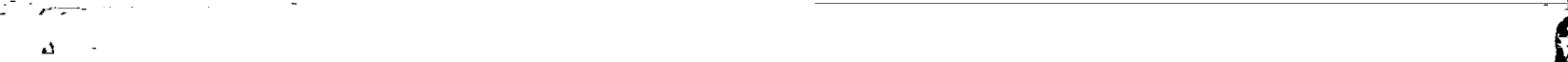

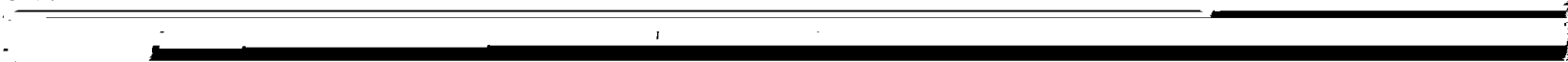
^{20/} See Comments of Rochester Telephone Corp., CC Docket No. 92-297, at 8-9 (filed Mar. 16, 1993); Comments of GTE Service Corp., CC Docket No. 92-297, at 5 (filed Mar. 16, 1993).

^{21/} See Comments of RSW Communications, Ltd., CC Docket No. 92-297, at 5 (filed Mar. 16, 1993); Suite 12 Comments, at 10.

^{22/} Suite 12 Comments, at 10.

of affording wireless cable operators a preference when they expand into the 28 GHz band. Absent addition spectrum capable of supporting future needs for two-way communications, the Commission's extensive efforts to promote wireless cable as effective competition will prove short-lived.

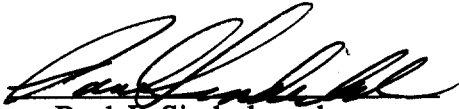
The hypocrisy of those who would deny wireless cable operators the additional spectrum they need to provide broadband services is patent. Suite 12, for example, vigorously opposes proposals to require LMDS licensees to set aside any of the fifty



Until the Commission fully understands both the capabilities and the limitations of the 28 GHz band, it would be premature to promulgate a regulatory structure that will last for years.

Respectfully submitted,

WIRELESS CABLE ASSOCIATION
INTERNATIONAL, INC.

By: 
Paul J. Sinderbrand
Dawn G. Alexander

Sinderbrand & Alexander
888 Sixteenth Street, N.W.
Suite 610
Washington, D.C. 20006-4103
(202) 835-8292

Its attorneys

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